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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PENG, KUO LIANG

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,955	Applicant(s) OCHS ET AL.	
	Examiner Kuo-Liang Peng	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/17/09 Response/Amendment.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-39 is/are rejected.
- 7) ☒ Claim(s) 23-39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/28/08, 6/6/08, 8/14/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicants' election in response to the restriction requirement filed on July 17, 2009 was received. Group I (Claims 23-39) is elected without traverse. Claims 1-22 and Claims 40-44 (Groups II-VI) are deleted.
2. Applicants' election of the species I" and III" are acknowledged. Claims 23-25, 27, 30 and 32-39 are pending for consideration. However, in view of the elected species later being found free of prior art, Examiner has decided to give an action on the merits for all species. Now, Claims 23-39 are pending.

Specification

3. The amendment filed **May 22, 2006** is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

In the amendment (Specification, page 3, line 2), Examiner is not able to find the basis for "nitrogen-containing mediators" because the original specification does not support the employment of **any** nitrogen-containing compound as a mediator. (Emphasis added)

In the amendment (Abstract, line 3), Examiner is not able to find the basis for “nitrogen-containing free-radical mediator” because the original specification does not support the employment of **any** nitrogen-containing compound as a mediator. (Emphasis added)

In the amendment (Specification, page 7, line 4), Examiner is not able to find the basis for “**less than** 1 g/l”. If Applicants contend that the support can be found in the corresponding WIPO publication, they are advised to particularly point out the location and the corresponding term recited therein.

Applicant is required to cancel the new matter in the reply to this Office action.

Claim Objections

4. Claims 23-39 are objected to because of the following informalities:

In Claim 23 (line 7), should “method” be -- process --?

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 23-39 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Examiner is not able to find the basis for the organosilicon compound containing **carbonyl** groups is present as a dispersed phase with a particle size of 200 μm or less. (Emphasis added) Notably, the dispersed phase refers to the organosilicon compound containing **carbinol** groups. (Specification, page 67, 1st paragraph)

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 25-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 recites the limitation "Y²" in page 12, line 7. There is insufficient antecedent basis for this limitation in the claim.

In Claims 26-29 (formula (II), "Y¹", "Y²" and "y" are not defined.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present

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instance, Claim 28 recites the broad recitation “v is 0, 1, 2 or 3”, and the claim also recites “preferably 0 or 1” which is the narrower statement of the range/limitation.

Claim 29 recites the limitation "A'" in (page 7, line 2). There is insufficient antecedent basis for this limitation in the claim.

In Claim 29, the formula (II) causes confusion because it should contain a carbonyl radical.

In Claims 30-31 (formula (IV)), “Y¹”, “Y³” and “y” are not defined.

In Claim 32, between the structures (XI) and (XII), should there be -- or -- as indicated in the claim as filed?

In Claim 32, should “are used as a mediator” be -- is used as a mediator --?

In Claim 32 (page 9, 3rd line from bottom bridging to page 10, line 2), it is not clear as to what “a [-CR¹⁷R¹⁷-] group ... [-CR¹⁷=N(O)-]” refers to.

In Claim 33 (line 3), “R¹⁷” causes confusion because R¹⁷ is a monovalent radical. As such, it would not attach the moiety of formulae (XI) or (XII) to a polymeric structure.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 23-26, 29, 32 and 34-39 are rejected under 35 U.S.C. 102(a),(e) as being anticipated by Fritz-Langhals (US 2003 0073871).

Fritz-Langhals discloses a continuous process for producing organosilicon compounds utilizing an N-oxygen compound. ([0002] and Examples) The amount of the N-oxygen compound is demonstrated in Examples. Notably, the process set forth in the instant claims is not necessarily carried out as a mixture.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject

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matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. When the claimed process is carried out as a mixture, the rejection below is applicable.

13. Claim 23-26, 29, 32 and 34-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fritz-Langhals.

Fritz-Langhals discloses a continuous process for producing organosilicon compounds. ([0002] and Examples) The amount of the N-oxygen compound is demonstrated in Examples. The reaction in the process can be in the form of multiple phases having a disperse phase. ([0039]) Fritz-Langhals is silent on the particle size of the dispersed phase. However, the particle size can determine the effective surface area of the particles and in turn the efficiency of the reaction. In other words, the particle size is a Result-Effective variable. Therefore, it would have been obvious to one of ordinary skill in the art to perform the reaction with a disperse phase having whatever particle size through routine experimentation in order to achieve the desired reaction efficiency. Especially, Applicants do not show the criticality of the particle size. See MPEP 2144.05 (II).

14. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fritz-Langhals in view of Burkhardt (US 2002 0035223).

Fritz-Langhals discloses a method for producing organosilicon compounds, *supra*, which is incorporated herein by reference. Fritz-Langhals is silent on the employment of a polymeric N-oxygen compound. However, Burkhardt teaches the use of polymeric N-oxygen compound for oxidizing alcohols into aldehydes or ketones. The motivation is to afford a process having advantages with regard to the aspects of economics and ecology. ([0001]-[0009])

15. Claims 27-28 and 30-31 would be allowable if rewritten to overcome the claim objection and/or the rejection(s) under 35 U.S.C. 112, first paragraph and/or second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck, can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

klp
August 25, 2009

/Kuo-Liang Peng/
Primary Examiner, Art Unit 1796